Dear Mr. Bingham,

Enclosed translation of the Cronartium part in our

Annual Report 1968.

"Cronartium: This spring all Pinus strobus plants in the test- and spray experiment were carefully investigated on blister rust. Already in April the check rows were seriously attacked by Cronartium, whereas the picture of the sprayed rows showed a strong contrast. Further examination based on the number of spots per needle provided important supplementary information. It could be established that plants sprayed by means of Maneb showed no spots at all; those plants treated with Zineb demonstrated more spots, whereas the needles of the untreated plants showed a serious amount of spots. It is to be expected that all checks are attacked, that Zineb gives an unsufficient protection against the rust, and that Maneb gives good results.

In the glass-house leaf discs of Ribes nigrum were inoculated by means of aecidiospores of the rust. The uredospores obtained on the leaf discs were used for inoculation of Ribes bushes about the middle of May. This did result in infection.

About the middle of June a begin of rust infection was true enough observed, but this was caused by (natural) aecidiospores available on Pinus strobus close to the bushes. Even in July rust infection of the Ribes nigrum remained very low, but since some telia developed, the first treatments were executed. In August, rust infection reached a reasonable degree of development."

Yours very sincerely,

J. Gremmen Forest Pathologist